

CLAIMS

1. An apparatus for wirelessly transmitting program
information concerning a program to be broadcast, to a radio
5 communication terminal, comprising:

a program information database in which program
information concerning a program to be broadcast is reserved;

retrieving-conditions-storing-means for storing
retrieving conditions which are set corresponding to a radio
10 communication terminal;

retrieving means for retrieving a program satisfying the
retrieving conditions stored in said retrieving-conditions-
storing-means from said program information database; and

transmitting means for voluntarily transmitting, when a
15 program satisfying said retrieving conditions is retrieved by
means of said retrieving means, the program information
concerning said retrieved program to said radio communication
terminal corresponding to said retrieving conditions.

2. An apparatus for transmitting program information as
20 defined in claim 1, further comprising transmission-
conditions-storing-means for storing transmission conditions
corresponding to said radio communication terminal, said
transmission conditions being used for transmitting the program
information retrieved by said retrieving means to said radio
25 communication terminal,

wherein said transmitting means transmits the program
information to said radio communication terminal corresponding
to said transmission conditions, when the transmission

05830750-043001
T000240-0520880

conditions stored in said transmission-conditions-storing-means are satisfied.

3. An apparatus for transmitting program information as defined in claim 1, wherein said transmitting means transmits
5 the program information retrieved by said retrieving means to said radio communication terminal, when it reaches a time that is a predetermined time before the start of broadcasting of the program.

4. An apparatus for transmitting program information as defined in any one of claims 1 to 3, wherein the program
10 information reserved in said program information database includes a basic information including the broadcast date-and-time of the program, channel, and program name information, and a detailed information concerning the contents of the
15 program, the amount of said detailed information being larger than that of said basic information;

and wherein said transmitting means voluntarily transmits said basic information of the program retrieved by said retrieving means to said radio communication terminal, and
20 subsequently transmits said detailed information of the program retrieved by said retrieving means when an instruction is provided from said radio communication terminal.

5. An apparatus for transmitting program information as defined in any one of claims 1 to 4, said apparatus further
25 comprising:

history-information-obtaining-means for obtaining history information concerning a watching operation, a recording operation or both of these operations of the user,

05830750-043001

Sub 1

for the program broadcast in the past; and

retrieving-conditions-writing-means for setting, based on the history information obtained by said history-information-obtaining-means, the retrieving conditions corresponding to said radio communication terminal of said user, so as to write the retrieving conditions into said retrieving-conditions-storing-means.

6. A communicating system comprising a radio communication terminal for performing a radio communication; a program-information-transmitting-apparatus for transmitting information concerning a program to be broadcast to said radio communication terminal; a program recording apparatus for recording a program to be broadcast; and a communication network connecting the apparatuses with one another,

wherein said program-information-transmitting-apparatus has a program information database in which program information concerning a program to be broadcast is reserved; retrieving-conditions-storing-means for storing retrieving conditions which are set corresponding to said radio communication terminal; retrieving means for retrieving a program satisfying the retrieving conditions stored in said retrieving-conditions-storing-means from said program information database; and transmitting means for voluntarily transmitting, when a program satisfying the retrieving conditions is retrieved by means of said retrieving means, a program information concerning the retrieved program to said radio communication terminal corresponding to said retrieving conditions;

05202860-043001

said radio communication terminal has program-
information-storing-means for storing a program information
transmitted from said program-information-transmitting-
apparatus; displaying means for displaying a program
5 information stored in said program-information-storing-means;
and recording-instruction-transmitting-means for
transmitting recording-instruction-information instructing a
program recording operation to said program recording apparatus
via said communication network; and

10 said program recording apparatus has instruction-
information-receiving-means for receiving said recording-
instruction-information transmitted via said communication
network and recording-operation-executing-means for recording
a program to be broadcast in accordance with the recording-
15 instruction-information received by said instruction-
information-receiving-means.

7. A communicating system comprising a radio communication
terminal for performing a radio communication; a program-
information-transmitting-apparatus for transmitting
20 information concerning a program to be broadcast to said radio
communication terminal; a program-providing-apparatus for
providing a program to the user when a registered user purchases
the program; and a communication network connecting the
apparatuses with one another,.....

25 wherein said program-information-transmitting-
apparatus has a program information database in which program
information concerning a program to be broadcast is reserved;
retrieving-conditions-storing-means for storing retrieving

05830750.043001
100640.05206890

conditions which are set corresponding to said radio communication terminal; retrieving means for retrieving a program satisfying the retrieving conditions stored in said retrieving-conditions-storing-means from said program information database; and transmitting means for voluntarily transmitting, when a program satisfying said retrieving conditions is retrieved by means of said retrieving means, the program information concerning the retrieved program to said radio communication terminal corresponding to said retrieving conditions;

said radio communication terminal has program-information-storing-means for storing a program information transmitted from said program-information-transmitting-apparatus; displaying means for displaying a program information stored in said program information storing means; and purchasing-instruction-transmitting-means for transmitting purchasing-instruction-information instructing a program purchasing operation to said program-providing-apparatus via said communication network; and

said program-providing-apparatus has purchasing-information-receiving-means for receiving a purchasing-instruction-information transmitted via said communication network and program-providing-means for providing a program to the user in accordance with the purchasing-instruction-information received by said purchasing-information-receiving-means.

8. A communicating system as defined in claim 6 or 7, wherein said program-information-transmitting-apparatus further

comprises transmission-conditions-storing-means for storing transmission conditions corresponding to said radio terminal, said transmission conditions being used for transmitting the program information retrieved by said retrieving means to said
5 radio communication terminal;

wherein said transmitting means transmits the program information to said radio communication terminal corresponding to said transmission conditions, when the transmission conditions stored in said transmission-conditions-storing-means are satisfied.

9. A communicating system as defined in claim 6 or 7, wherein said transmitting means transmits the program information retrieved by said retrieving means to said radio communication terminal, when it reaches a time that is a predetermined time before the start of broadcasting of the program.

10. A communicating system as defined in any one of claims 6 to 9, wherein the program information reserved in said program information database includes a basic information including the broadcast date-and-time of the program, channel, and program name information and a detailed information concerning the contents of the program, the amount of said detailed information being larger than that of said basic information;

said transmitting means voluntarily transmits said basic information of the program retrieved by said retrieving means
25 to said radio communication terminal, and subsequently transmits said detailed information of the program retrieved by said retrieving means when an instruction is provided from said radio communication terminal.

05/03/2001 05:07:50

Salazar

Lat 92
11. A communicating system as defined in any one of claims 6 to 10, said system further comprising history-information-obtaining-means connectable to said communication network, for obtaining history information concerning a watching operation, a recording operation or both of these operations, of the user, for the program broadcast in the past, so as to transmit the history information to said program-information-transmitting-apparatus;

wherein said program-information-transmitting-apparatus has retrieving-conditions-writing-means for setting, based on the history information transmitted from said history-information-obtaining-means, the retrieving conditions corresponding to said radio communication terminal of said user, so as to write the retrieving conditions into said retrieving-conditions-storing-means.

12. A method of wirelessly transmitting a program information concerning a program to be broadcast to a radio communication terminal, said method comprising the steps of :

a retrieving step of retrieving a program satisfying retrieving conditions which are set corresponding to the radio communication terminal, from a program information database in which program information concerning a program to be broadcast is reserved; and

a transmitting step of, when a program satisfying said retrieving conditions is retrieved in said retrieving step, voluntarily transmitting a program information concerning the retrieved program to said radio communication terminal corresponding to said retrieving conditions.

13. A method of transmitting program information as defined in claim 12, wherein, in said transmitting step, when the transmission conditions which are set corresponding to said radio terminal are satisfied, the program information retrieved in said retrieving step is transmitted to said radio communication terminal corresponding to said transmission conditions.

14. A method of transmitting program information as defined in claim 12, wherein, in said transmitting step, the program information retrieved in said retrieving step is transmitted to said radio communication terminal, when it reaches a time that is a predetermined time before the start of broadcasting of the program.

15. A method of transmitting program information as defined in any one of claims 12 to 14, wherein said program information reserved in said program information database includes a basic information including the broadcast date-and-time of the program, channel, and program name information and a detailed information concerning the contents of the program, the amount of said detailed information being larger than that of said basic information;

and wherein, in said transmitting step, said basic information of the program retrieved in said retrieving step is voluntarily transmitted to said radio communication terminal, and said detailed information of the program retrieved in said retrieving step is sequentially transmitted to said radio communication terminal when an instruction is provided from said radio communication terminal.

16. A program-recording-instruction-method of instructing a recording operation of a program from a radio communication terminal to a program-recording-apparatus for recording a program to be broadcast, comprising the steps of :

5 a program-retrieving-step of retrieving a program which satisfies retrieving conditions preset by a user of said radio communication terminal, from a database in which program information concerning a program to be broadcast is reserved;

10 a program-information-transmitting-step, in which, when a program satisfying said retrieving conditions is retrieved, a program information concerning the retrieved program is obtained from said database, so that the program information is voluntarily transmitted to said radio communication terminal;

15 a program-information-displaying-step of receiving the transmitted program information at said radio terminal and displaying the received program information, so as to prompt the user to instruct the recording operation of the program; and

20 a recording-instruction-transmitting-step, in which, when the recording operation of the program is instructed, recording-instruction-information is transmitted from said radio communication terminal to said program-recording-apparatus...

25 17. A method of instructing a program recording operation as defined in claim 17, wherein, in said program-information-transmitting-step, when the transmission conditions which are set corresponding to the user of said radio terminal are

00830750.013001
F00240.05202860

Sula3

Sub 93
satisfied, the program information retrieved in said retrieving step is transmitted.

18. A method of instructing a program recording operation as defined in claim 17 or 18, wherein the program information reserved in said database includes a basic information including the broadcast date-and-time of the program, channel, and program name information and a detailed information concerning the contents of the program, the amount of said detailed information being larger than that of said basic information;

and wherein, in said program-information-transmitting-step, said basic information of the program retrieved in said program retrieving step is voluntarily transmitted to said radio communication terminal, and said detailed information of the program retrieved in said retrieving step is sequentially transmitted to said radio communication terminal when an instruction is provided from said radio communication terminal.

19. A program-recording-instruction-method of instructing a purchasing operation of a program from a radio communication terminal to a program-providing-apparatus, said program-providing-apparatus providing a registered user with a program instructed from the user to purchase it, comprising the steps of :

a program-retrieving-step of retrieving a program satisfying the retrieving conditions which are set corresponding to a user of said radio communication terminal from a database in which program information concerning a

program to be broadcast is reserved;

5 a program-information-transmitting-step, in which, when
a program satisfying said retrieving conditions is retrieved,
a program information concerning the retrieved program is
obtained from said database, so that the program information
is voluntarily transmitted to said radio communication
terminal;

10 a program-information-displaying-step of receiving the
transmitted program information at said radio terminal and
displaying the received program information, so as to prompt
the user to instruct the purchasing operation of the program;
and

15 a purchasing-instruction-transmitting-step, in which,
when the purchasing operation of the program is instructed, the
purchasing-instruction-information is transmitted from said
radio communication terminal to said program-providing-
apparatus.

20 20. A method of instructing a program purchasing operation
as defined in claim 19, wherein, in said program-
information-transmitting-step, when the transmission
conditions which are set corresponding to the user of said radio
terminal are satisfied, the program information retrieved in
said retrieving step is transmitted.

25 21. A method of instructing a program purchasing operation
as defined in claim 19 or 20, wherein the program information
reserved in said database includes a basic information
including the broadcast date-and-time of the program, channel,
and program name information and a detailed information

and wherein, in said program-information-

10

add 94